

## Waterworks

Custodian: The Corporation of the District of Saanich, Water Resources Division

Publish Date: January 1, 2003

Abstract: The waterworks dataset represents a collection of features that convey water through the distribution system.

Purpose: The waterworks dataset is captured to support the management, planning, and maintenance of waterworks assets.

Status: Complete

Update Frequency: Weekly

Credits: The Corporation of the District of Saanich, Engineering Department, Public Works Division, Storm and Wastewater Section, IT Dept GIS

Coordinate System: NAD 1983 CSRS UTM Zone 10N (WKID: 3157)

Geometry Type: Point, Line & Polygon

The 13 Data Layers comprising the Waterworks dataset are:

1. Water Abandoned Asset
2. Water Abandoned Main
3. Water Control Valve
4. Water Fitting
5. Water Hydrant
6. Water Meter
7. Water Pressurized Main
8. Water PRV Assembly
9. Water Pump Station
10. Water Reservoir
11. Water Service Line
12. Water Structure
13. Water System Valve

## 1. Water Abandoned Asset

**Abstract:** The abandoned water asset is a device that formerly transported, stored or analyzed water through the waterworks network. Abandoned water assets remain in the ground and are comprised of an extensive classification of former junction points including Bulk Meter, Hydrant, Manhole, Meter, Pump Station, Reservoir, Control Valve (Pressure Regulating), Fitting (Cap, Coupling, Reducer), System Valve (Air, Branch, Check, Flush, Hydrant, Mainline, Service, Zone).

Geometry Type: Point

Attribution Information:

<b>FIELD NAME</b>	<b>DESCRIPTION</b>	<b>EXAMPLES</b>
OBJECTID/FID	Internal feature number	12
ASSETTYPE	Type of abandoned asset	Fitting (Cap), System Valve (Mainline)
ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich
FACILITYID	Unique Alphanumeric ID assigned by Saanich	WSV008788
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Point

## 2. Water Abandoned Main

**Abstract:** The abandoned water main is a pipe that no longer participates in the waterworks network. Abandoned water mains remain in the ground with the disconnected ends being capped. Types captured include Pressure Main (Distribution, Transmission) and Service (Standard, Hydrant, Fire)

Geometry Type: Line

Attribution Information:

<b>FIELD NAME</b>	<b>DESCRIPTION</b>	<b>EXAMPLES</b>
OBJECTID/FID	Internal feature number	12
MAINTYPE	Type of abandoned main	Pressure Main (Distribution), Service Line (Standard)
ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich
FACILITYID	Unique Alphanumeric ID assigned by Saanich	WPM007718
MATERIAL	Pipe material type	Ductile Iron

DIAMETER	Diameter of pipe in millimetres	200
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Line
SHAPE.LEN	Length of pipe in metres	382

### 3. Water Control Valve

**Abstract:** A water control valve is a device that controls the flow of water by means of reducing, relieving or sustainment. Type includes Pressure Regulating Valve.

Geometry Type: Point

Attribution Information:

FIELD NAME	DESCRIPTION	EXAMPLES
OBJECTID/FID	Internal feature number	146
SUBTYPE	Type of control valve	1 = Pressure Regulating
ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich
FACILITYID	Unique Alphanumeric ID assigned by Saanich	WCV000061
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Point

### 4. Water Fitting

**Abstract:** A water fitting represents a device used to connect or cap water main lines. A fitting can indicate a transitional change in pipe material, diameter, or installation year. Types include Cap, Coupling, and Reducer.

Geometry Type: Point

Attribution Information:

FIELD NAME	DESCRIPTION	EXAMPLES
OBJECTID/FID	Internal feature number	146
SUBTYPE	Type of fitting	1 = Cap 2 = Coupling 3 = Reducer

ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich
FACILITYID	Unique Alphanumeric ID assigned by Saanich	WFG001734
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Point

## 5. Water Hydrant

**Abstract:** A water hydrant represents the outlet used by fire fighters to attach fire hoses to the waterworks network. Secondary uses include flushing main and service lines, filling tank trucks, and providing a temporary water source for construction projects.

Geometry Type: Point

Attribution Information:

FIELD NAME	DESCRIPTION	EXAMPLES
OBJECTID/FID	Internal feature number	12
ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich
HYDRANTNUMBER	Unique number designated and physically labeled on hydrant	1401
LOCATION	Civic address close to hydrant	3498 LOVAT AVE
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Point

## 6. Water Meter

**Abstract:** A water meter is a device used to measure the volume of water usage at a particular property within the District of Saanich. It is commonly located at the end of a service line.

Geometry Type: Point

Attribution Information:

FIELD NAME	DESCRIPTION	EXAMPLES
OBJECTID/FID	Internal feature number	292
ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich

REGISTERSERIAL	Register Serial Number	042764934
STREETUNIT	Street Unit Suffix	A, B, C
STREETNUMBER	Numeric value assigned to the property or building	1250
STREETNAME	Name of the street	HASTINGS ST
PRESSUREZONE	Pressure zone number	1
SIZEMM	Pipe size in millimetres	12.5, 50, 75
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Point

## 7. Water Pressurized Main

**Abstract:** A pressurized water main is a pipe used to distribute water throughout the waterworks network. Types include Distribution (less than 600 mm diameter) and Transmission (greater than or equal to 600 mm diameter).

Geometry Type: Line

Attribution Information:

FIELD NAME	DESCRIPTION	EXAMPLES
OBJECTID/FID	Internal feature number	12
SUBTYPE	Type of main	1 = Distribution 2 = Transmission
ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich
FACILITYID	Unique Alphanumeric ID assigned by Saanich	WPM006329
DIAMETER	Pipe diameter in millimetres	150
MATERIAL	Pipe material type	Ductile Iron
RELINED	Pipe has been relined	Yes or No
RELINEMETHOD	Construction method used for pipe relining	Pipe Bursting, Spray in Place Coating
RELINESTRUCTURAL	Relined pipe has had significant reconstruction	Yes or No

LINERTHICKNESS	Thickness of liner in millimetres	10
HOSTMATERIAL	Material type for host pipe	Cast Iron
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Line
SHAPE.LEN	Length of pipe in metres	272

## 8. Water PRV Assembly

**Abstract:** A PRV water assembly is a manmade structure or chamber that houses pressure regulating valves and other mechanical equipment. PRV assemblies are typically located underground and are represented by a polygon outline of the structure's foundation.

Geometry Type: Polygon

Attribution Information:

FIELD NAME	DESCRIPTION	EXAMPLES
OBJECTID/FID	Internal feature number	12
ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich
FACILITYID	Unique Alphanumeric ID assigned by Saanich	WPV000034
NAME	Name of PRV assembly	PHYLISS PRV
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Polygon
SHAPE.AREA	Area in square metres	11.76
SHAPE.LEN	Length of pipe lateral in metres	14.38

## 9. Water Pump Station

**Abstract:** A water pump station is a structure that houses pumps and other equipment for pumping water from one location to another. The pump station connects incoming and outgoing pipes and is represented by a point that is placed within the outline of the structure's foundation.

Geometry Type: Point

Attribution Information:

FIELD NAME	DESCRIPTION	EXAMPLES
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OBJECTID/FID	Internal feature number	12
ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich
FACILITYID	Unique Alphanumeric ID assigned by Saanich	WPS000016
LOCATIONDESCRIPTION	Location description of feature	QUAYLE RD @ INTERURBAN RD
NAME	Pump station name	QUAYLE PUMP STATION
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Point

## 10. Water Reservoir

**Abstract:** A water reservoir is a storage structure that supplies water to the network and connects incoming and outgoing pipes. The reservoir is represented by a point that is placed within the outline of the structure's foundation.

Geometry Type: Point

Attribution Information:

FIELD NAME	DESCRIPTION	EXAMPLES
OBJECTID/FID	Internal feature number	12
ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich
FACILITYID	Unique Alphanumeric ID assigned by Saanich	WRV000006
LOCATIONDESCRIPTION	Location description of feature	
NAME	Reservoir name	WESLEY RESERVOIR
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Point

## 11. Water Service Line

**Abstract:** A water service line is a small-diameter pressurized pipe that typically runs from the pressurized main to one of the following devices: customer meter, hydrant, valve, or structure. Types include Standard, Hydrant, and Fire.

Geometry Type: Line

Attribution Information:

FIELD NAME	DESCRIPTION	EXAMPLES
OBJECTID/FID	Internal feature number	12
SUBTYPE	Type of service line	1 = Standard Lateral 2 = Hydrant Lateral 3 = Fire Lateral
ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich
FACILITYID	Unique Alphanumeric ID assigned by Saanich	WLL014355
DIAMETER	Pipe diameter in millimetres	12.5, 37
MATERIAL	Pipe material type	High Density Polyethylene
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Line
SHAPE.LEN	Length of pipe lateral in metres	13.8

## 12. Water Structure

**Abstract:** The water structure is a manmade structure or building that is used to house equipment, convey, or store water. A water structure is typically located partially underground and is represented by a polygon outline of its foundation. Types include Chamber, Manhole, Other, Pressure Meter Station, Pump Station, Reservoir, Valve Chamber.

Geometry Type: Polygon

Attribution Information:

FIELD NAME	DESCRIPTION	EXAMPLES
OBJECTID/FID	Internal feature number	4
STRUCTURETYPE	Type of structure	Chamber, Manhole, Other, Pressure Meter Station, Pump Station, Reservoir, Valve Chamber
FACILITYID	Unique Alphanumeric ID assigned by Saanich	WSE000117

ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Polygon
SHAPE.AREA	Area in square metres	11.13
SHAPE.LEN	Perimeter in metres	13.39

### 13. Water System Valve

**Abstract:** A water system valve is a device that is fitted to a pressure main or service line and used to control the flow of water within the waterworks network. Types include Service, Air, Mainline, Branch, Flush, Hydrant, Check, and Zone Boundary.

Geometry Type: Point

Attribution Information:

FIELD NAME	DESCRIPTION	EXAMPLES
OBJECTID/FID	Internal feature number	12
SUBTYPE	Type of valve	1 = Service 2 = Air 3 = Mainline 4 = Branch 5 = Flush 6 = Hydrant 7 = Check 8 = Zone Boundary
ADMINISTRATIVEAREA	Organization or jurisdictional owner responsible for maintenance of feature	District of Saanich
FACILITYID	Unique Alphanumeric ID assigned by Saanich	WSV000893
DIAMETER	Opening size of valve in millimetres	25
GLOBALID	Unique Global Identifier	{2AD1E3A4-C091-4CD3-9582-F6D6BCE6039A}
SHAPE	Feature geometry	Point